

PostScript

LETTERS

Delayed orchidopexy: failure of screening or ascending testis

Current guidelines recommend that orchidopexy for undescended testis (UDT) should be undertaken before 2 years of age because of the possible risks of torsion, infertility, and malignant transformation.¹

We conducted a retrospective audit on eight consecutive orchidopexies for UDT over a three month period in 1996 at North Tees and Hartlepool general hospitals. Median age of orchidopexy was 7.8 years (range 15 months to 10.5 years), and only 12% of the children were operated on when under 2 years of age. Following this we introduced joint guidelines for UDT screening at birth, 6-8 weeks, 6-9 months, 12-15 months, and during the preschool check.

A re-audit was done after a five year period on all 99 children who underwent orchidopexy between January 2001 and January 2003. Median age (range) at orchidopexy was 5.2 years (15 months to 14.6 years) and was not significantly different to the first audit ($p = 0.29$). Only 14/99 (14.1%) of children were operated before the age of 2 years. The majority (54.5%) of the children had orchidopexy between the age of 5 and 15 years.

Reasons for delay in orchidopexy in the 85 children were categorised into six groups. *Group 1:* Suspected retractile testis: 23 (19.5%); testis was initially thought to be retractile, but later became undescended. *Group 2:* Surgical delay: 13 (11.1%). *Group 3:* Ascending testis: 16 (13.6%) (documented scrotal testis which subsequently became non-scrotal). *Group 4:* System failure: 9 (7.7%); failure to attend appointments or children were lost to follow up. *Group 5:* Late surgical referrals: 2 (1.7%). *Group 6:* Uncertain cause: 22 (18.7%); we could not ascertain the exact reason for delay in this group because of lack of documentation of testis position at birth and early infancy. Diagnosis of UDT was late in these children, which could be due to failure of screening or ascending testis.

Ascent of a previously scrotal testis appears to be the likely cause for late diagnosis of UDT, rather than a failure of screening. This would explain consistently high orchidopexy age reported from all over the world, despite introduction of aggressive UDT screening.^{2,3}

There is increasing evidence to suggest ascending testis (primary acquired UDT⁴) is a common occurrence, outnumbering congenital UDT by a factor of two to three. Pathogenesis of primary acquired UDT is thought to be due to relative shortening of cord structures with respect to other tissues.⁵

Optimal management of primary acquired UDT is not known, but there is some evidence to suggest that most of these would descend spontaneously into the scrotum during puberty and the testicular volume is not affected. Moreover orchidopexy carries a 5-6% risk of damage to spermatic cord structures, resulting in gonadal atrophy.⁷

We conclude that late orchidopexies are possibly due to orchidopexies being carried out on ascending testes in prepubertal boys. Is likely that many of these orchidopexies are

unnecessary and the testis might descend spontaneously during puberty. There is a need for a national testis registration at birth and to undertake large prospective cohort studies to establish the natural history of ascending testis.

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doi: 10.1136/adc.2003.045070

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Is it time for a European formulary of paediatric medicines?

All Italian physicians, nurses, and pharmacists have recently received, free of charge, the *Guida all'uso dei farmaci per i bambini* (Guide to the use of drugs for children).¹ Considering the number of health professionals involved (about 600 000), the methodology followed, the completeness of the contents, the size of the book produced, and its free availability, this initiative, set up under the auspices (technical and economic) of the Italian Ministry of Health, is unique at the national and international levels. This formulary can be considered part of the cultural trial begun in the mid 1990s by the Royal College of Paediatrics and Child Health and the Neonatal and Paediatric Pharmacists Group, which led to the creation of *Medicines for children*² in 1999, a tool characterised by an evidence based approach and designed to assist those who prescribe, dispense, or administer medicines to children. While work was in progress on the first Italian Guide and the second UK edition of *Medicines for children*, formal exchanges took place between the two groups.

The main objective of a formulary is not simply to list drugs and their therapeutic profiles, but to function as an essential tool for a rational use of medicines. A formulary must therefore be a source of up to date, evidence based information about both medicines and therapeutic approaches for the most frequent clinical problems, in and out of hospital. These traits have characterised the formularies developed since the 1970s, but only recently has such an undertaking focused on children's needs.

The need for additional sources of paediatric drug information, such as formularies,

arises from an inadequate drug evaluation and registration process. The insufficient data leads to inevitable off-label or unlicensed drug use, which may entail a certain degree of risk for patients.³ This unsatisfactory standing of children with regard to optimal drug therapy is well recognised, especially in the USA and Europe, but the situation in the latter has been better defined through numerous studies.⁴ Off-label/unlicensed prescription rates are in the range 23-62% in European paediatric hospital wards, 55-80% in neonatal intensive care units, and 11-49% in the community setting.⁴ Wide differences in therapeutic approaches were found between and within settings and countries, suggesting the need for "harmonisation" in clinical practice.

Paediatric studies are more difficult than adult studies because of ethical, practical, and economic considerations. Attempts to improve the situation in Europe were initiated in 1997 when the Committee for Proprietary Medicinal Products (CPMP), part of the European Agency for the Evaluation of Medicinal Products (EMEA), published the "Note for guidance on clinical investigation of medicinal products in children". Later efforts involved the European Commission's *Better medicines for children* 2000 document proposing new regulatory actions to address the lack of suitably adapted paediatric medicinal products, the creation of a Paediatric Expert Group by the CPMP in 2001 to encourage the development of paediatric medicinal products, and the decision by the European Union, under its Fifth Framework Programme in 2002, to support the development of a European register of clinical trials in children (DEC-net project; www.dec-net.org; contract QL4-CT-2002-01054). The role of the European register is to handle essential data on completed and ongoing research as a useful resource for planning new studies, promoting communication and collaboration among researchers, facilitating patient access and recruitment into trials, preventing trial duplication and inappropriate funding, and identifying therapeutic needs of children that remain neglected.⁵ The Sixth Framework Programme is currently running and "Medicines for children" is one of the specific topics. In 2004, the European Commission published a draft consultation document, Regulation of the European Parliament and Council on medicinal products for paediatric use, which is currently undergoing final revisions.

The inevitable use of deduction as a means to obtain what is "probably" the best therapy for a child may gradually disappear, but the continued production and availability of evidence based information for health professionals and lay people has to be guaranteed. Children have the same rights as adults to receive safe and effective medicines. In such a context, guiding clinicians to ensure that children benefit from the medications they are given is a priority, and a collaborative, shared paediatric formulary would be useful in accomplishing this. A continuation of the efforts made in the UK and Italy, with the joint participation of different countries in an endeavour to set up a European formulary led up by an international committee, would be a valuable achievement and should be

supported. The project would be a challenge for the Community and would result in a consensus on paediatric drug therapies (a qualitative and quantitative synthesis of the evidence),⁶ guaranteeing all children the same approved, acknowledged therapeutic approaches to which they have a right.

Acknowledgements

Chiara Pandolfini is supported in part by a Monzino fellowship.

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doi: 10.1136/adc.2003.048025

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BOOK REVIEWS

Enduring memories: a paediatric gastroenterologist remembers—a tale of London and Sydney

J Walker-Smith. The Memoir Club, 2003. £17.50 (hardback), pp 299. ISBN 1841040525

John Walker-Smith describes himself as an inveterate collector, and in this autobiography he has drawn together his personal collection of memories, anecdotes, and most importantly people; some 400 are indexed. They are, as one would expect, mostly friends and acquaintances acquired during a distinguished career, although there is the occasional adversary or rival. For the younger reader many of the descriptions of life as a young doctor will be strikingly familiar even if separated by 30 or 40 years, while the image of early morning tea brought to one's room by a domestic, and communal roast dinner carved by the resident medical officer are truly from another era.

The first half of the book describes a childhood in Sydney, following his father into medicine. His subsequent training followed a path that required a flexibility which with our current system would be almost

unthinkable. Having been a junior doctor in Sydney the author came to London to work as a houseman at the Hammersmith and Brompton hospitals. He then returned to Australia, before moving again to Zurich for further training. After this he spent five further years in Sydney before finally moving again to London to become a consultant/senior lecturer in child health at St Bartholomew's and Queen Elizabeth Hospital for Children (QEHC), London. Along the way he undertook his MD. This was based on an analysis of the dissecting microscope appearance of the small intestine in children at postmortem examination who had died from both gastroenterological and non-gastroenterological causes. The fact that he could analyse 116 child autopsies over a period of 22 months, reflects the changing face of child health in the developed world, where diseases such as infantile gastroenteritis were frequently fatal not so many years ago, before effective oral or intravenous rehydration regimes had been developed.

Subsequent chapters deal with issues which for many readers will be all too familiar. In the London context there is the permanent revolution of both hospital and medical school merger and restructuring which for Walker-Smith was particularly difficult: Barts merged with the Royal London and QEHC closed. Then, more recently, in the last few years before retirement spent at the Royal Free, there was the controversy around the MMR vaccine and autism. It is interesting to read his perspective as someone at the very centre of events. For although he does not believe that "professional and research matters should normally be discussed in the public media", but "should be discussed in scientific and medical media and at the relevant meetings", the controversy has been the most widely reported medical media story in the UK for many years.

The final, and probably the most significant of the themes running through the book is that of the development of paediatric gastroenterology as a separate discipline within paediatrics but in an international context. There have been the technical advances from small bowel biopsy with Crosby capsule to fiberoptic endoscopy, the clinical advances in the management of intestinal failure and transplantation, and the laboratory advances in the microbiology of infections diarrhoea, and understanding of the mechanisms of mucosal inflammation. For those of us in the field this process continues. Although there have been some advances with, for example, the development of identifiable sub-specialist training schemes, many of the tensions documented in the book—specialist versus general paediatrics, academic versus clinical paediatrics, and clinical versus non-clinical research—still persist.

J M Fell

Fast facts—infant nutrition

Alan Lucas and Stanley Zlotkin. Oxford: Health Press, 2003. £12.00 paperback, pp 108. ISBN 1899541934

The authors are well known for their research in infant nutrition and both have contributed to major textbooks on neonatology and the

nutritional needs of preterm infants. I hoped therefore that this handbook might be the "indispensable guide to clinical practice" that it is billed to be on its front cover. As soon as the book reached me I skimmed through it, starting with the Introduction.

"Fast facts—infant nutrition provides practical, evidence based guidance to a broad range of health professionals involved in paediatrics". Taking this statement as a starting point I decided to pose myself seven simple and basic questions that one might expect such a book to answer. How much milk does a newborn baby need? What is the energy requirement of a 6 month old baby? Does a 9 month old require vitamin supplements? When can whole cows' milk be given? How much should a 3 month old baby weigh? What sort of solids should a baby start on? How long should mothers go on breast feeding?

The answers to most of these questions were to be found, but with varying degrees of ease and difficulty. The closest I could get to how much milk a baby should take was a minimum volume of 600 ml, from 4 months onwards. Neither "energy" nor "calorie" appear as headings in the index, even though tables 2.3 and 2.4 and the associated text deal with their requirements. Under "multivitamins" attention is drawn to the differing recommendations in the UK (yes) and North America (no) for supplementation of vitamin A, C, and D after 6 months, without any evidence to explain each. However, on page 45 it is recommended, because it is not possible to identify all infants at risk of vitamin D deficiency, that supplements are prudent for breast fed full term infants. Cows' milk appears in the index but table 3.3 is the only indication, not definitive, of when it might be given alone. There are growth charts in the chapter on growth, but only as examples. None is provided for both sexes, which can be used for reference. The answer to what sort of solids to start with can be found, via the index, in the chapter on transition to solid foods. However, the most useful table (3.3) is in the chapter on growth.

Reading the book from cover to cover provides an overview of the physiology, nutritional requirements, growth, and modes of feeding of infants, and selected information on clinical and health issues. The emphasis is on healthy babies in the developed world, including preterm infants. The four fifths of children born in the developing world are largely neglected. The section on gastroenteritis properly recommends orally rehydration therapy, but there is nothing to be found on cereal based solutions or re-feeding after diarrhoea. Neither AIDS nor HIV appears in the index, even though they are mentioned as potential contraindications to breast feeding. How best to feed babies born of HIV positive mothers is a pressing problem for those who look after them.

This book is not so much "fast facts" as "ready overview". Although it will fit in the pocket, it won't equip the busy SHO with what he or she needs to deal with the everyday problems of infant feeding and nutrition. It will however give them a useful starting point to learn more about this extremely important branch of paediatrics.

L T Weaver